DOCUMENT RESUME

ED 157 234 EC 111 172

AUTHOR	Kalogerakis, Michael G., Ed.
TITLE	Pharmacotherapy for Institutionalized Adolescents: Report of a Panel.
SPONS AGENCY	New York State Dept. of Mental Hygiene, Albany.
PUB DATE	78
NOTE	22p.
EDRS PRICE	MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS	Adolescents; Civil Liberties; *Drug Therapy; *Emotionally Disturbed; *Guidelines; *Institutionalized Persons

ABSTRACT

Presented are 34 guidelines and related charts developed by a New York panel of experts on psychotherapy with disturbed institutionalized adolescents. The guidelines are organized into general principles, specific indications (acute disturbances subacute, and chronic disturbances), and the patient's rights. Charts include a list of commonly used medications (with generic names, brand names, and pharmacological families), recommended dosage levels, and recommended medication for subgroups of adolescent patients. Conclusions of the panel on the place of drug therapy, its usefulness in the treatment of disorders characterized by violent behavior, the risks, and the patient's rights are briefly discussed. Eight suggested research questions are noted. Appended are questions for discussion and selected references. (DB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED157234

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

PHARMACOTHERAPY FOR INSTITUTIONALIZED ADOLESCENTS

Report of a Panel

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Bureau of Children and ~~Youth Services, Office of Mental Health~~
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

EC111192

OFFICE OF CHILDREN AND YOUTH

NEW YORK STATE OFFICE OF MENTAL HEALTH

1978

2

PANEL ON PHARMACOTHERAPY
FOR INSTITUTIONALIZED ADOLESCENTS

Members

Michael G. Kalogerakis, M.D.
Chairman
Associate Commissioner
Office of Children and Youth
N.Y.S. Dept. of Mental Hygiene

Jonathan Cole, M.D.
Chief of Pharmacology Program
McLean Hospital
Belmont, Massachusetts

Gloria Faretra, M.D.
Director
Queens Children's Psychiatric Center
N.Y.S. Dept. of Mental Hygiene

Richard Feinberg, M.D.
Director
Bronx Children's Psychiatric Center and
Bronx Court-Related Unit
N.Y.S. Dept. of Mental Hygiene

Subhash Inamdar, M.D.
Assistant Director
Bellevue Hospital
Adolescent Unit
New York City

Donald Klein, M.D.
Director of Research
Psychiatric Institute - N.Y.C.
N.Y.S. Dept. of Mental Hygiene

Lee Macht, M.D.
Director of Psychiatry
Cambridge Hospital
Cambridge, Massachusetts

Andrew McBride, M.D.
Medical Director
N.Y.S. Division for Youth

Sol Nichtern, M.D.
Director of Psychiatric Services
Jewish Child Care Assoc. of N.Y.
New York City

Michael A. Pawel, M.D.
Montefiore-Morrisania
Comprehensive Health Care Center
Bronx, New York

Judith Rapoport, M.D.
National Institute of Mental Health
Bethesda, Maryland

Martin Weinapple, M.D.
Asst. Professor of Psychiatry
Director of Adolescent Services
Dept. of Psychiatry
Rutgers Medical School
New Brunswick, New Jersey

Other Participants

Salvatore Lomonaco, M.D.
Psychiatrist
Inpatient Diagnostic Unit
Bronx Court-Related Unit
Bronx Children's Psychiatric Center

Adrian Sondheimer, M.D.
Psychiatrist
Inpatient Diagnostic Unit
Bronx Court-Related Unit
Bronx Children's Psychiatric Center

New York State Division For Youth
Peter B. Edelman
Director

New York State Division of Criminal Justice Services
Marilyn Seide
Cher Malinsky

New York State Department of Mental Hygiene
Robert Schack

Legal Aid Society
Joan Cooney
Charles Hollander
Edward Kaufman
Miriam Kerster
Joyce Korn
Maria Thorpe

PREFACE

This document is the product of many individuals' efforts and experience. Special acknowledgement is made to Lawrence C. Kolb, M.D., former Commissioner of Mental Hygiene, for encouragement and support of this project.

It is significant that in the light of our present limited knowledge and considerable controversy on some issues, a consensus was reached on most points addressed.

The participants, all of whom were physicians, drew largely upon hospital experience for their recommendations. The report is, therefore, specifically applicable to hospitalized populations. Nonetheless, we hope that it will prove valuable in any setting where psychotropic medication is used for adolescents.

Michael G. Kalogerakis, M.D., Editor
Associate Commissioner
Office of Children and Youth
N.Y.S. Department of Mental Hygiene
and
Clinical Professor of Psychiatry
New York University School of Medicine

Assisted by

Judith Calof
Research Scientist
Office of Children and Youth
N.Y.S. Department of Mental Hygiene

CONTENTS

Page

Panel and Other Participants iii
Preface v
Introduction: Convening the Panel 1
Guidelines for the Use of Psychotropic Medication on Adolescent Units 3
General Principles 3
Specific Indications 4
Acute Disturbances 4
Subacute and Chronic Disturbances 5
Patient's Rights 6
Commonly Used Medications for Disturbed Adolescents 8
Recommended Dosage Levels 9
Recommended Medication for Subgroups of Adolescent Patients 9
Discussion of Principal Conclusions 10
Recommendations on Research 13
Appendix I: Questions for Discussion 14
Appendix II: Selected References 15

INTRODUCTION: CONVENING THE PANEL

This report is the result of two all-day sessions on pharmacotherapy for institutionalized, severely disturbed adolescents held at University Hospital, New York University Medical Center, New York City.

In relation to questions then being raised about appropriate use of medication at the Bronx Court-Related Unit, an inpatient facility for violent disturbed adolescents jointly operated by the New York State Division for Youth and the New York State Department of Mental Hygiene at Bronx State Psychiatric Center, the Office of Children and Youth of the latter agency formed a panel composed of experts in psychopharmacology and adolescent psychiatry to evaluate the issues and develop guidelines. Two other agencies had a direct concern and were represented by observers who participated in the discussions: the New York State Division of Criminal Justice Services, source in New York of federal funds allocated by the Law Enforcement Assistance Administration which financed a major component of the court-related unit and supported this effort; and the Legal Aid Society, whose law guardians retain an active advocate's role as their clients move from Family Court to Division for Youth to the Court-Related Unit.

Although the experts participating were chosen by the Department of Mental Hygiene, input was sought and obtained from the Division for Youth and the Legal Aid Society. In fact, those suggested by these agencies agreed to participate and became active members of the panel. In addition, the director of the Court-Related Unit and the medical director of the Division for Youth joined the panel. The full list of panelists and other participants starts on page iii. For the most part, observers did not participate actively in the deliberations until the close of the second session when due process and civil rights concerns were discussed at length.

The need for such a panel arose from three important facts:

1. In contrast to an extensive literature on the use of psychotropic medication for younger children and adults, no comprehensive guidelines for the use of medication with disturbed institutionalized adolescents could be found in the literature.

2. The art of pharmacotherapy for violent disturbed individuals of any age was still in its infancy with little if any information dealing specifically with adolescents. (See Selected References, Appendix II.)

3. Controversy had arisen on the use of medication at the Court-Related Unit. Important clinical issues as well as due process concerns had been raised in a number of communications to the Office of Children and Youth of the Department of Mental Hygiene. The law guardians, in particular, had recorded their urgent concern about heavily sedated patients (the "zombie" look). Since patients were "voluntary" admissions according to the Mental Hygiene Law, and Departmental regulations gave such voluntary patients the right to refuse treatment, the law guardians were concerned that due process safeguards be rigorously observed. Additional questions they raised related to the toxicity of various psychotropic agents, including the possibility of irreversible brain damage and the hierarchical place of pharmacotherapy in the spectrum of available treatment modalities.

The charge to the panel was, therefore, twofold: to address the problems surrounding the use of medication for the population in the Court-Related Unit, but to do so in the broader context of the principles of pharmacotherapy applicable to all disturbed adolescents likely to be found in institutions, especially hospitals.

"Significant research on the pharmacotherapeutic treatment of adolescents is lacking," asserted Dr. Michael G. Kalogerakis, who chaired the discussion, "and the state of the art on using psychotropic drugs for control of aggressive behavior is still primitive. Basic questions need to be resolved on the place of pharmacotherapy in treatment, how it can be used most effectively, and what risks are incurred in its use. Tantalizing theory rather than hard facts characterize our information," he pointed out, "and our task is to address ourselves to the clinical decisions that must be made in using psychotropic medication for the mentally disabled adolescents in our hospitals."

A series of 10 questions was mailed to the panelists who replied in writing (Appendix I). At the second session, each question was discussed individually and additional questions developed as the discussion proceeded.

A detailed report of the proceedings is available from: Office of Chidren and Youth, Department of Mental Hygiene, 2 World Trade Center, 56th Floor, New York, New York 10047.

Guidelines for the Use of Psychotropic Medication on Adolescent Units

General Principles

1. Pharmacotherapy is an established method of treatment of emotional disturbance in adolescence. Its potential value for a given patient should be considered when the comprehensive individual treatment plan is being devised for the patient, in accordance with commonly accepted clinical criteria.

2. Though prescription of medication is the responsibility of the physician, input from all staff having direct contact with the patient, especially nurses, is important in deciding to initiate or discontinue treatment, raise or lower dosage.

3. The basis for all treatment is a careful diagnostic assessment. Though prescription of medication is appropriate following a presumptive diagnosis and initial determination of need, it shall be adjusted as indicated by the continuing evaluation of the patient.

4. On admission, all patients should be observed drug-free for a period of 10 days, to permit diagnosis in an unclouded field. Exceptions should be limited to those few cases which pose a serious danger of injury to self or others. Patients previously medicated must be withdrawn gradually (lithium excepted).

5. Standard hospital regulations with regard to methods of prescribing, administering and recording all use of medication shall be rigorously observed and must meet, as a minimum, requirements of the Joint Commission on the Accreditation of Hospitals (JCAH) for accreditation of psychiatric facilities for children and adolescents.

6. The goal of drug therapy is clinical relief of symptoms distressing to the patient or interfering with normal functioning. Included are psychotic symptoms, agitation, severe anxiety, severe depression, and destructive impulses with threatened loss of control. Note that significant clinical improvement may not occur before three to six weeks of drug therapy.

7. Although the overall treatment plan is based on diagnosis, the actual choice of drug is determined by the clinical symptomatology and not by the diagnostic label.

8. The proper dosage is the lowest that will maintain the desired therapeutic effect. To arrive at this, titrate upwards from an initial low dose until an effective maintenance level is achieved and then lower the dose and the frequency to the lowest level that still produces the desired effect. Note that this may sometimes be impractical with adolescents who have a variable clinical course, but it remains the recommended approach. This method also protects the patient from the common error of inadequate dosage (Physicians' Desk Reference [PDR] recommended levels are often too low for adolescents).

9. Twice a day is currently in wide use as a dosage schedule for the major tranquilizers, two-thirds the daily dose being given at bedtime. One dose at bedtime is preferred by some and gives adequate coverage.

10. The oral route is the preferred method of administration in the absence of specific contraindications. The liquid form will preclude medication being sequestered (a practice not uncommon among adolescents), though it affords less security that the actual dose given is the dose prescribed. Parenteral use (I.M. or I.V.) is particularly valuable in crisis situations (items 16-22) because of the quicker response, and with uncooperative patients for whom medication is essential. It may be mandated by medical conditions which interfere with swallowing or resorption.

11. Toxicity caused by the standard drugs in use with adolescents is not generally significant. As with all medication, the decision to continue treatment in the presence of undesirable side effects must be considered against a cost/benefit ratio. The possible benefits of using anticholinergic drugs prophylactically is still an unsettled question.

12. Continuous monitoring for toxicity by laboratory methods is unnecessary for psychotropic drugs. Reliance on clinical signs is sufficient in most cases. Teachers, activity therapists, and other staff should report drowsiness and other untoward reactions of patients receiving medication.

13. Preparation for discharge of inpatients receiving medication should consider whether continuation of drug therapy is essential. The problems that attend medication of outpatients and the policy of many child-care institutions which precludes the use of medicine must figure in the discharge plan.

14. Periodic review of medication should be at least monthly for inpatients and once every three months for outpatients.

15. Drug "holidays" of one month's duration every year for patients being maintained on phenothiazines with re-evaluation of the patient's clinical condition every three months are desirable.

Specific Indications

Acute Disturbances

16. The acutely psychotic patient whose behavior on admission is likely to result in serious harm to himself or others should be medicated immediately with one of the neuroleptics, if necessary intramuscularly. Chlorpromazine is generally the preferred drug; 50-100 mg. I.M. or 100-150 mg., orally, can be given safely. Care should be taken that there is no history of allergy to phenothiazines

(uncommon) and that there has not been recent use of potentiating or incompatible drugs.

17. The acutely psychotic patient who presents no likelihood of serious harm to himself or others should be left drug-free for 10 days, after which, if symptoms have not cleared spontaneously, he may be started on phenothiazines.

18. The acutely disturbed patient who is *not* psychotic but presents a likelihood of serious harm to himself or others may be calmed with a short-acting barbiturate (e.g., sodium amytal I.M.). However, severe agitation often responds well to the major tranquilizers and 50-100 mg. of chlorpromazine I.M. may be a useful alternative. If the acute disorder is a severe depressive episode, or if suicide threatens, psychotherapy is the treatment of choice. Antidepressants are not indicated.

19. Acute disturbance in a nonpsychotic patient presenting no likelihood of serious harm to himself or others is best handled by psychotherapeutic means. Medication should only be considered after the 10-day drug-free period if symptoms have not subsided despite efforts to engage the patient in psychotherapy.

20. Acute disturbance of any kind supervening during hospitalization, when the patient is known to staff, may often be handled by separating the patient from the group and talking with him. This approach works best when the staff member who has the best relationship to the patient is available to deal with him. Stat medication, using the above guidelines, may be necessary if this fails and should be used whenever grave risk to the safety of other patients or staff exists.

21. All patients who are acutely disturbed must be evaluated as to need for maintenance medication following the acute episode. This is particularly important when repeated episodes endangering others are a possibility.

22. The simultaneous medication of several excited or agitated adolescents when a major disturbance threatens (e.g., a riot situation), particularly because of the well known danger of behavior contagion on adolescent units, may be appropriate and sound psychiatric practice. Such a need is likely to arise infrequently and always calls for a careful review of the unit's therapeutic program, social system and interpersonal dynamics.

Subacute and Chronic Disturbances

23. Any psychosis which has not remitted spontaneously in the first 10 days should be treated with an appropriate neuroleptic. Treatment should continue for a length of time adequate to permit a definitive determination of the

value of the drug. A poor response calls for a trial with another major tranquilizer. (The literature indicates lithium may be as effective as the phenothiazines for chronic disturbances but should be used as an experimental drug requiring appropriate steps to obtain informed consent.) Polypharmacy is not generally recommended.

24. Chronically psychotic adolescents may require long-term maintenance pharmacotherapy as an adjunct to psychotherapy. Such medication may make it possible to maintain the patient in the community and facilitate psychotherapy.

25. Neurotic and personality disorders in which anxiety is a significant component may benefit from judicious short-term use of a minor tranquilizer such as diazepam or chlordiazepoxide. Since these are dependency-inducing and can be abused, they pose real risks to adolescent patients and should not be used routinely.

26. Adolescent depression is usually reactive and therefore not generally an indication for antidepressants. Psychotherapy remains the treatment of choice. However, if the depression is severe (lasts longer than two weeks) and is accompanied by anhedonia and/or psychomotor retardation, antidepressant drugs deserve a trial.

27. Routine nightime hypnotics should be prohibited. Most adolescents will manage to fall asleep in time if left to their own devices. Hot milk, hot baths, and talking it over may be all the assistance necessary. Occasionally, when all else has failed, a benzodiazepine such as flurazepam hydrochloride, 30 mg. may be tried for two or three days.

28. Standing orders (PRN's) to cover emergency situations may be necessary when dealing with a highly volatile, potentially dangerous adolescent population. These should be reviewed daily by the physician responsible for the patient and reordered only if the risk continues. Periodic review of the PRN situation by the chief psychiatrist or medical director of the unit is essential (at least once a week). Such a review should take note of type of medication, dosage, person requesting it, time administered, and results. In many adolescent units, adequate staffing and a more tractable patient population may make PRN medication quite unnecessary.

Patient's Rights

29. The plan to use medication, as well as all other forms of treatment, should be fully discussed with the adolescent so that he understands the rationale and goals, possible side effects and their importance, and is informed as to what to report about changes in the way he feels. In this way, he is made a full participant in the treatment plan and is more likely to cooperate.

30. The patient should receive care and treatment that is suited to his needs, including any medication that offers a reasonable chance to improve his condition.

31. In the event that the adolescent refuses medication and discussion fails to change his mind, a determination must be made as to the importance of medication in the overall treatment plan. If a situation fraught with the possibility of imminent and serious danger exists, even a voluntary patient should be given the medication, by parenteral route, if necessary. When there is no such emergency, postponement of a particular dose in the hope that resistance can be worked through with the patient is advisable. Should the medication be deemed important but not essential, a voluntary patient should be encouraged to take it. His initial agreement at the time of admission to cooperate with the treatment plan is obviously pertinent to the discussion. Advising him of the alternative of discharge often helps overcome a minor resistance.

32. Generally speaking, adolescents are more likely to fall into oppositional ways than adults and once they take a stand, the need to save face makes it difficult for them to yield. Their judgment about what is in their best interest may be quite faulty. The younger adolescent, in particular, may be limited in his ability to reason abstractly. The consequence of all this is that he cannot be expected to exercise an adult's judgment with regard to what adults are planning for him. Existing psychopathology further interferes with such determinations. The decision on medication should not, therefore, be left to the adolescent. The psychiatrist responsible for his care must weigh the arguments and make a decision. The laws or regulations in some states (e.g., New York) permit adolescents admitted voluntarily to refuse medication.

33. Where a lawyer is available to the patient, he should be afforded the opportunity of: transmitting to staff the patient's attitudes to psychotropic medication; learning from staff the reasons for the use of medication. Clinical staff should interpret the patient's assertions with regard to medication. This may be an important way of avoiding the manipulations of adolescents who are prone to setting one authority against another.

34. Medication must never be used for punitive purposes nor automatically in response to staff demands that the patient be sedated. Such demands must be evaluated in the overall picture and careful consideration given to front line staff's reports. The decision to medicate will be based, nevertheless, on the foregoing clinical criteria (see item *6*).

Commonly Used Medications for Disturbed Adolescents

GENERIC NAMES	BRAND NAME	FAMILY
Major Tranquilizers		
Chlorpromazine	Thorazine, Sonazine	Phenothiazine
Thioridazine	Mellaril	Phenothiazine
Fluphenazine	Prolixin Permitil	Phenothiazine
Perphenazine	Trilafon	Phenothiazine
Trifluoperazine	Stelazine	Phenothiazine
Haloperidol	Haldol	Butyrophenone
Minor Tranquilizers		
Diazepam	Valium	Benzodiazepine derivative
Chlordiazepoxide	Librium	Benzodiazepine derivative
Antidepressants		
Imipramine	Tofranil	Tricyclic derivative
Sedative-Hypnotics		
Amobarbital	Amytal and others	Barbiturate
Phenobarbital	Luminal and others	Barbiturate
Chloral hydrate	Noctec and others	Nonbarbiturate
Flurazepam	Dalmane	Nonbarbiturate
Anticholinergic Drugs		
Benztropine mesylate	Cogentin	
Trihexyphenidyl HCL	Artane	
Miscellaneous		
Lithium carbonate	Eskalith, Lithane, Lithonate	

Recommended Dosage Levels

	Upper Level	Recommended Level
Chlorpromazine	2000 mg./day	50-900 mg./day
Thioridazine	800 mg./day	50-600 mg./day
Trifluoperazine	60 mg./day	10- 50 mg./day
Fluphenazine		
Hydrochloride	50 mg./day	4-20 mg./day
Enanthate	100 mg./2 weeks	25 mg./2 weeks
Decanoate	100 mg./2 weeks	25 mg./2 weeks
Haloperidol	60 mg./day	4-20 mg./day

Notes:

1. Many physicians find that giving all medication at bedtime is useful, but there is some disagreement.
2. Many physicians use routine antiparkinson medication in a prophylactic way; others feel that it should be used only when there are manifest extrapyramidal symptoms.
3. It is not unusual for skilled clinicians to go beyond the upper level, but consultation should be sought.

Recommended Medication for Subgroups of Adolescent Patients

Patient	Medication
1. Excited psychotic on a nontoxic basis	Antipsychotic drugs I.M. because of benefit of quick effect. Recommendation: 50-100 mg. chlorpromazine I.M. If patient were accepted on medication and circumstances allowed containment without danger to the patient or staff, then 200 mg. chlorpromazine P.O. Repeat 1 to 3 hrs. with review every 1-3 days.
2. Nonpsychotic excited state	3¼ - 7½ grains amobarbital I.M. or 10-20 mgs. diazepam I.M.
3. Acute toxic psychosis	Diagnosis is mandatory. Phenothiazine should not be used because of possibility of exacerbating anticholinergic toxicity. Intramuscular haloperidol would be appropriate in doses approximating 10 mg. I.M.
4. Convulsive disorder leading to violence	Phenobarbital or diazepam sedation with anticonvulsants on a chronic basis. If an acute emergency, haloperidol I.M. in doses of about 10 mg.

Discussion of Principal Conclusions

Four major questions confronted the panel and were addressed in various ways.

- What is the place of drug therapy in the treatment of institutionalized adolescents?
- How useful is it in the treatment of disorders characterized by violent behavior?
- What are the risks?
- What are the patient's rights with regard to such treatment?

There was remarkable unanimity among the experts on all these issues, divergence of opinion being confined to relatively minor points.

Pharmacotherapy has been one of the cornerstones of medical treatment from ancient times to the present. Our knowledge and sophistication about drugs has increased dramatically in the last century, profoundly altering the practice of medicine. The last 25 years have seen major strides in a previously undeveloped aspect of the art, psychopharmacology. Hospitals with populations of several thousand mentally disturbed patients have been cut back to a few hundred residents and in many instances completely phased out. The major tranquilizers in particular have had an impact which has permitted more and more of the severely disturbed to function in the community.

What has been the effect of all this on the practice of adolescent psychiatry? Adolescent inpatient services are scarcely older than the neuroleptic drugs, the first all-adolescent ward in the United States being established in 1938 at Bellevue Hospital in New York. The decrease in hospitalized populations of adolescents has not been as striking as with adults, where chronic schizophrenics were the major group to benefit. Adolescents are more likely to be afflicted with acute disturbances and require far shorter periods of hospitalization. Maintenance in the community is more complicated. The developing ego of the adolescent may require more support as it is being subjected to stresses peculiar to his age.

Drugs have proved of great value in treating psychoses, as with adults. They have undoubtedly shortened the course of the psychotic process, altered its symptom picture, and maintained the adolescent at a better level of functioning in many cases. They have permitted earlier return to a normal school program and to their families. The antipsychotics (major tranquilizers and neuroleptics) have proved their value and are an essential component in the total therapeutic approach to severe disturbances in adolescence.

Far less clear is the value of other psychotropic agents. The barbiturates, though effective sedative-hypnotics, receive little use on a sustained basis because of their addictive potential. The so-called minor tranquilizers or anxiolytic agents are habit-forming and, although used by many practitioners with adolescent populations, have not established their value as they have with adults. Antidepressants are even

less proved, perhaps because of the nature of depression in adolescence, which differs significantly from its forms in adults.

In general, though drugs have a clear place in any adolescent psychiatrist's armamentarium, there is a pronounced tendency among most practitioners with this age group to keep their use to a minimum and to prefer the "talking therapies" wherever applicable. The point was made that to give drugs is not necessarily to treat, that medication is but *one* type of therapeutic intervention, and that in all cases its use must be part of a *comprehensive* treatment program.

This feeling was much in evidence throughout the discussions of the panel at the same time that concern was expressed that an antidrug bias could deprive a youngster of much-needed, effective therapy. Used appropriately, it relieves symptoms of psychotic disturbance or affective distress, thus improving function. There was sharp criticism of its use in a manner which interfered with the mental ability of the patient to function, whether in a hospital or elsewhere.

It was thought important by clinicians experienced in working with children and adolescents to remember that the variable clinical course of emotional disturbance in this age group often frustrates attempts to operationalize dosage by titration, etc.

With regard to the second question, the panel concluded that, despite continuing ignorance on the pharmacotherapy of aggression in general, medication is a valuable adjunct in the treatment of certain violent disturbed adolescents, such as those in the Bronx Court-Related Unit. Such youths do not constitute a homogeneous population diagnostically. Consequently, the value of drug therapy was seen to be heavily dependent on the diagnosis and, in particular, on the symptom picture. Psychotics, the highly agitated, the impulse-ridden, were considered prime candidates for appropriate psychotropic medication.

On the other hand, the true sociopath or the antisocial youth without anxiety or guilt feelings was seen as not benefiting in any way from drug therapy. A state of acute anger, often the consequence of institutional realities, was not considered an acceptable indication for the use of medication. It was repeatedly emphasized that the target symptoms for such therapy were those which underlie the violent behavior and give rise to it and *not* the violence itself.

On the basis of the available data, risks accompanying the use of psychotropic agents were thought to be minor and limited to only a few of the substances in common use. Of the phenothiazines, only thioridazine was discouraged because of its association with problems of ejaculation and impotence, which, even if transient, have great psychological importance to a male adolescent. Parkinsonism, hypotensive reactions and other phenothiazine-related signs of toxicity, though undesirable, are not significant and pose no danger of permanent damage. The cost-benefit ratio should be the deciding consideration with such side effects. The only serious condition, tardive dyskinesia, is virtually unknown in children or adolescents, perhaps because of the necessarily shorter duration of use, but all

agreed it bears watching. (There is hope that it may be reversed by Clozapine, a drug not yet available in the United States but in use in Great Britain.)

Other drugs likely to be used are not toxic at usual dosage levels. As with adults, the dangers of polypharmacy in which assorted drugs are used in combination (particularly when alcohol abuse may be part of the symptom picture) should be stressed. There are few indications, in the opinion of the panelists, for using more than one drug simultaneously.

Some panelists, emphasizing the lack of controlled studies, reserved final judgment on the long-term safety of the drugs in use.

Finally, what are or should be the patient's rights with regard to the use of this treatment modality? Ideally, there is no question that the full cooperation of the patient is desirable for *any* treatment, in medicine generally or in psychiatry. Two problems arise in this area with the population under consideration:

1. The very nature of psychiatric disturbance as compared to other illnesses is such as to interfere, often greatly, with the individual's judgment, including his ability and desire to act in his own best interest. Self-destructiveness is a ubiquitous characteristic of most emotional disorders and may be manifested in many ways. Refusing treatment designed to return him to a healthier state is one way. The paranoid individual in particular will view with great distrust any intervention whose potential is uncertain.
2. Adolescents are still growing, and the younger ones have yet to achieve full capacity to reason in the abstract. They lack the adult's capacity to conceptualize and to determine self-interest. The adult world's idea about what is best for the youth may be roundly rejected simply because it issues from the generation which, as the youth perceives it, would like nothing better than to restrict the younger person's growing autonomy.

How then can we realistically expect an adolescent, particularly if disturbed, to cooperate fully with an adult-devised treatment plan aimed at curbing behavior that is in some ways gratifying to the youth? How, especially, if he is already embarked on an antisocial course, as in the case of many institutionalized adolescents and all in the Court-Related Unit? Experienced child and adolescent psychiatrists and many parents know the wisdom of not giving a child an option about such things as school, chores, and medicine.

The task here is to involve the adolescent in the treatment process without giving him veto power over medical decisions or tacit approval for resisting our initiatives.

Where the youth is represented by an attorney, as in the Court-Related Unit, it is particularly important to avoid adversarial postures which the youth can make use of to defeat all efforts to help him. Lawyer and psychiatrist have a unique opportunity to work together to assure both optimum care and treatment and due process. Such a working arrangement was earnestly desired by both panelists and observers, many of whom were law guardians assigned to youngsters in the unit.

Recommendations on Research

The panelists agreed that research in psychopharmacology is essential if we are to advance the science. Many unanswered questions about the effectiveness of drugs in current use remain. New drugs have to be tested before they can be placed in general use.

The dearth of valid research in the drug treatment of adolescents and the control of aggression calls for an intensive effort to improve our data by controlled studies. Some of the questions are:

1. Are the phenothiazines useful for nonpsychotic states, and are they more effective than benzodiazepines or barbiturates for acute emotional reactions?
2. Can we refine further the most desirable dosage schedule for the major tranquilizers?
3. Do anxiolytic drugs (minor tranquilizers) have a place in the care of emotionally disturbed adolescents?
4. Do antidepressants promise relief of any form of adolescent depression?
5. Does lithium, useful with adult manics, offer any hope for hyperactive or aggressive adolescents?
6. Can a specific antiviolence drug be found?
7. Is chronic rage likely to respond to drugs?
8. What is the relationship of other variables such as staff-patient interaction to the effectiveness of medication of disturbed adolescents?

Appendix I: Questions for Discussion

1. Is medication in any form a valid therapeutic modality for the specific population?
2. What criteria should be followed in prescribing such medication?
3. What are the appropriate dosage schedules for each substance?
4. What symptomatic or other change should be the goal?
5. What toxic reactions are to be expected? To what extent can they be tolerated by the patient, and at what point should their presence mandate discontinuation of the drug?
6. What forms of sedation are permissible on a one-shot basis; i.e., for crisis intervention? What situations call for ongoing use of psychotropic drugs and what restrictions should be applied to such use?
7. What can the present state of the art say about the pharmacotherapy of severe aggression and the control of violent impulses? To what extent do these findings apply to an adolescent population?
8. What syndromes other than frank psychosis call for the use of psychotropic drugs, and how might these best be applied? (Here, we must address the large group of persons with personality disorders, who may or may not be suffering from anxiety, agitation, depression, or who may experience great anger and even rage or be hostile and belligerent.)
9. In what way does the fact that the clinical syndromes calling for medication are often intermittently present in an institutionalized youngster affect our decision to use this modality?
10. What guidelines can be drawn up for the use of the minor tranquilizers, barbiturates, chloral hydrate, and paraldehyde?

Appendix II: Selected References

Pharmacology and Pharmacotherapy

1. Goodman, L.S. and Gilman, A.Z. *The Pharmacological Basis of Therapeutics.* 5th Ed., MacMillan, N.Y., 1975.
2. Klein, D.F. and Davis, J.M. *Diagnosis and Drug Treatment of Psychiatric Disorders.* William Wilkins Co., Baltimore, 1969.
3. Nichtern, Sol. *Psychopharmacotherapy for Children.* Insight Publishing Company, New York, 1973.
4. Solow, R.A. Child and Adolescent Psychopharmacology in the Mid-Seventies: Progress or Plateau? *Psychiatry Digest,* Oct. 1976.
5. Freeman, D.X., Chairman. *Report of the Conference on the Use of Stimulant Drugs in the Treatment of Behaviorally Disturbed Children.* Sponsored by the Office of Child Development and the Office of the Asst. Sec. for Health and Scientific Affairs, Dept. of Health, Education and Welfare, Washington, D.C. (Jan. 11-12), 1971.
6. Frommer, E.A. Drug Treatment of Specific Psychiatric Disorders. In: W.L. Burland and B.M. Laurence, eds., *The Therapeutic Choice in Pediatrics,* Williams and Wilkins, Baltimore, 1972, pp. 207-221.

Psychiatric Treatment of Adolescents

1. Easson, W.M. *The Severely Disturbed Adolescent.* International University Press, New York, 1969.
2. Kalogerakis, M.G. Adolescents in Crisis, in *Psychiatric Emergencies.* R.A. Glick, A.T. Meyerson, E. Robbins, J.A. Talbott, Eds., Grune and Stratton, New York, 1976.
3. Kernberg, Otto. *Borderline Conditions and Pathological Narcissism.* Jason Aronson Inc., New York, 1975.
4. Madden, D.J. Voluntary and Involuntary Treatment and Aggressive Patients. *American Journal of Psychiatry* 134: 553-555, 1977.
5. Mendelsohn, W., Johnson, N., and Stewart, M.A. Hyperactive Children Seen as Teenagers: A Follow-Up Study. *J. Nerv. Ment. Dis.,* 153: 273-279, 1971.

Aggression and Violence

1. *Journal of Nervous and Mental Diseases*, Vol. 160, No. 2, 1975. (Entire issue devoted to pharmacotherapy of violence)
2. Kalogerakis, M.G. The Assaultive Psychiatric Patient in *The Psychiatric Quarterly*, 45:3 (372-381), 1971.
3. Kalogerakis, M.G. Therapy of Assaultive Psychiatric Patients in *Current Psychiatric Therapies*, Vol. XIII, 1973.
4. Kalogerakis, M.G. The Sources of Individual Violence in *Adolescent Psychiatry*. Vol. 3. Feinstein, S., and Giovacchini, P., eds., Basic Books, New York, 1973.

Legal and Ethical Issues

1. Hearings on the Abuse and Misuse of Controlled Drugs in Institutions Before the Subcommittee to Investigate Juvenile Delinquency of the Committee on the Judiciary, 94th Congress, 1st Session, Vol. I-III (1977).